

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (currently amended) A method of structuring interactive content for mobile devices, comprising the steps of:

determining layout and rendering parameters based on mobile device information;

parsing requested content including a plurality of pages into a document having a plurality of discrete objects, each discrete object having a format based on at least said layout and rendering parameters;

~~generating document content on an object-by-object basis from said document;~~

generating a document table based on an ~~said~~ object-by-object basis for said document ~~content~~;

serializing said document ~~content~~ into a content stream ~~according to said object-by-object basis~~, wherein said content stream includes [[a]] the plurality of objects, wherein objects of the plurality of objects are ordered according to a defined order within said content stream;

serializing said document table into said content stream according to said object-by-object basis; and

transmitting said content stream to a mobile device;

wherein the serialized document table contains at least one pointer to object data in the content stream.

2. (original) The method of claim 1, wherein said object-by-object basis corresponds to distinguishable pieces of said request content.

3. (currently amended) The method of claim 1, whereby said document table provides points of reference to the objects of said document ~~content~~.

4. (currently amended) The method of claim 1, further comprising the steps of:

compressing said document ~~content~~ according to said object-by-object basis; and
encrypting said document ~~content~~ according to said object-by-object basis.

5-6. (canceled)

7. (previously presented) The method of claim 1, further comprising the step
of:
storing said content stream on a mobile device.

8. (previously presented) The method of claim 1, further comprising the step
of:
modifying an object of said content stream, wherein said object corresponds to
distinguishable pieces of said request content.

9. (previously presented) The method of claim 8, wherein modifying step
comprises the steps of:

(a) accessing an object pointer in said document table within said
content stream, wherein said object pointer contains a vtable pointer for accessing
instance methods and an attribute pointer for accessing said object within said content
stream;

(b) copying said object to a new memory space for modification;

(c) altering said object with said instance methods; and

(d) updating said attribute pointer of said object pointer to the
memory space of said object that has been altered.

10. (currently amended) A computer system of structuring interactive
content for mobile devices, comprising:

means for determining layout and rendering parameters based on mobile device
information;

means for parsing requested content including a plurality of pages into a document having a plurality of discrete objects, each discrete object having a format based on at least said layout and rendering parameters;

~~first means for generating document content on an object-by-object basis from said document;~~

~~second~~ means for generating a document table based on an ~~said~~ object-by-object basis for said document ~~content~~;

~~first~~ means for serializing said document ~~content~~ into a content stream ~~according to said object-by-object basis~~, wherein said content stream includes ~~[[a]]~~ the plurality of objects, wherein objects of the plurality of objects are ordered according to a defined order within said content stream;

~~second~~ means for serializing said document table into said content stream according to said object-by-object basis; and

means for transmitting said content stream to a mobile device;

wherein the serialized document table contains at least one pointer to object data in the content stream.

11. (original) The system of claim 10, wherein said object-by-object basis corresponds to distinguishable pieces of said request content.

12. (currently amended) The system of claim 10, whereby said document table provides points of reference to the objects of said document ~~content~~.

13. (currently amended) The system of claim 10, further comprising:
means for compressing said document ~~content~~ according to said object-by-object basis; and

means for encrypting said document ~~content~~ according to said object-by-object basis.

14-15. (canceled)

16. (previously presented) The system of claim 10, further comprising:
means for storing said content stream on a mobile device.

17. (previously presented) The system of claim 10, further comprising:
means for modifying an object of said content stream, wherein said object
corresponds to distinguishable pieces of said request content.

18. (previously presented) The system of claim 17, wherein means for
modifying comprises:

means for accessing an object pointer in said document table within said
content stream, wherein said object pointer contains a vtable pointer for accessing
instance methods and an attribute pointer for accessing said object within said content
stream;

means for copying said object to a new memory space for modification;

means for altering said object with said instance methods; and

means for updating said attribute pointer of said object pointer to the
memory space of said object that has been altered.

19. (currently amended) A computer program product comprising a
computer usable medium having computer readable program code means embodied in
said medium for causing an application program to execute on a computer that structures
interactive content for mobile devices, said computer readable program code means
comprising:

a first computer readable program code means for causing a computer to
determine layout and rendering parameters based on mobile device information;

a second computer readable program code means for causing a computer to parse
requested content including a plurality of pages into a document having a plurality of
discrete objects, each discrete object having a format based on at least said layout and
rendering parameters;

~~a third computer readable program code means for causing a computer to
generate document content on an object by object basis from said document;~~

a ~~fourth~~ third computer readable program code means for causing a computer to generate a document table based on an said ~~object-by-object~~ basis for said document ~~content~~;

a ~~fifth~~ fourth computer readable program code means for causing a computer to serialize said document ~~content~~ into a content stream ~~according to said object-by-object basis~~, wherein said content stream includes [[a]] the plurality of objects, wherein objects of the plurality of objects are ordered according to a defined order within said content stream;

a ~~sixth~~ fifth computer readable program code means for causing a computer to serialize said document table into said content stream according to said object-by-object basis; and

a ~~seventh~~ sixth computer readable program code means for causing a computer to transmit said content stream to a mobile device;

wherein the serialized document table contains at least one pointer to object data in the content stream.

20. (original) The computer program product of claim 19, wherein said object-by-object basis corresponds to distinguishable pieces of said request content.

21. (currently amended) The computer program product of claim 19, whereby said document table provides points of reference to the objects of said document ~~content~~.

22. (currently amended) The method of claim 19, further comprising:

an eighth computer readable program code means for causing a computer to compressing said document ~~content~~ according to said object-by-object basis; and

a ninth computer readable program code means for causing a computer to encrypting said document ~~content~~ according to said object-by-object basis.

23-24. (canceled)

25. (previously presented) The computer program product of claim 19, further comprising:

an eighth computer readable program code means for causing a computer to store said content stream on a mobile device.

26. (previously presented) The computer program product of claim 19, further comprising:

an eighth computer readable program code means for causing a computer to modify an object of said content stream, wherein said object corresponds to distinguishable pieces of said request content.

27. (previously presented) The computer program product of claim 26, wherein said eighth computer readable program code means comprises:

a ninth computer readable program code means for causing a computer to access an object pointer in said document table within said content stream, wherein said object pointer contains a vtable pointer for accessing instance methods and an attribute pointer for access said object within said content stream;

a tenth computer readable program code means for causing a computer to copy said object to a new memory space for modification;

an eleventh computer readable program code means for causing a computer to alter said object with said instance methods; and

a twelfth computer readable program code means for causing a computer to update said attribute pointer of said object pointer to the memory space of said object that has been altered.

28. (currently amended) A method of structuring interactive content for mobile devices, comprising:

determining layout and rendering parameters based on mobile device information;

parsing requested content into a document having a plurality of discrete objects, each discrete object having a format based on at least said layout and rendering parameters;

~~generating document content on an object-by-object basis from said document;~~

generating a document table based on an [[said]] object-by-object basis for said document ~~content~~;

compressing said document ~~content~~ according to said object-by-object basis;

encrypting said document ~~content~~ according to said object-by-object basis;

serializing said document ~~content~~ into a content stream according to said object-by-object basis;

serializing said document table into said content stream according to said object-by-object basis ~~for said document~~, wherein said document ~~content~~ and said document table form said content stream according to said mobile device information; and

modifying an object of said content stream, wherein said object corresponds to distinguishable pieces of said request content, wherein said modifying comprises:

accessing an object pointer in said document table within said content stream, wherein said object pointer contains a vtable pointer for accessing instance methods and an attribute pointer for accessing said object within said content stream,

copying said object to a new memory space for modification,

altering said object with said instance methods, and

updating said attribute pointer of said object pointer to the memory space of said object that has been altered.

29. (currently amended) A computer system of structuring interactive content for mobile devices, comprising:

means for determining layout and rendering parameters based on mobile device information;

means for parsing requested content into a document having a plurality of discrete objects, each discrete object having a format based on at least said layout and rendering parameters;

~~means for generating document content on an object-by-object basis from said document;~~

means for generating a document table based on an ~~[[said]]~~ object-by-object basis for said document ~~content~~;

means for compressing said document ~~content~~ according to said object-by-object basis;

means for encrypting said document ~~content~~ according to said object-by-object basis;

means for serializing said document ~~content~~ into a content stream according to said object-by-object basis;

means for serializing said document table into said content stream according to said object-by-object basis ~~for said document~~, wherein said document ~~content~~ and said document table form said content stream according to said mobile device information; and

means for modifying an object of said content stream, wherein said object corresponds to distinguishable pieces of said request content, wherein means for modifying comprises:

means for accessing an object pointer in said document table within said content stream, wherein said object pointer contains a vtable pointer for accessing instance methods and an attribute pointer for accessing said object within said content stream,

means for copying said object to a new memory space for modification,

means for altering said object with said instance methods, and

means for updating said attribute pointer of said object pointer to the memory space of said object that has been altered.

30. (currently amended) A computer program product comprising a computer usable medium having computer readable program code means embodied in

said medium for causing an application program to execute on a computer that structures interactive content for mobile devices, said computer readable program code means comprising:

a first computer readable program code means for causing a computer to determine layout and rendering parameters based on mobile device information;

a second computer readable program code means for causing a computer to parse requested content into a document having a plurality of discrete objects, each discrete object having a format based on at least said layout and rendering parameters;

~~a third computer readable program code means for causing a computer to generate document content on an object-by-object basis from said document;~~

a ~~fourth~~ third computer readable program code means for causing a computer to generate a document table based on an ~~[[said]]~~ object-by-object basis for said document ~~content~~;

a ~~fifth~~ fourth computer readable program code means for causing a computer to compress~~[[ing]]~~ said document ~~content~~ according to said object-by-object basis;

a ~~sixth~~ fifth computer readable program code means for causing a computer to encrypt~~[[ing]]~~ said document ~~content~~ according to said object-by-object basis;

a ~~seventh~~ sixth computer readable program code means for causing a computer to serialize said document ~~content~~ into a content stream according to said object-by-object basis;

an ~~eighth~~ seventh computer readable program code means for causing a computer to serialize said document table into said content stream according to said object-by-object basis ~~for said document~~, wherein said document ~~content~~ and said document table form said content stream according to said mobile device information; and

a ~~ninth~~ eighth computer readable program code means for causing a computer to modify an object of said content stream, wherein said object corresponds to distinguishable pieces of said request content, wherein said ninth computer readable program code means comprises:

a ~~tenth~~ ninth computer readable program code means for causing a computer to access an object pointer in said document table within said content stream,

wherein said object pointer contains a vtable pointer for accessing instance methods and an attribute pointer for access said object within said content stream,

a ~~eleventh~~ tenth computer readable program code means for causing a computer to copy said object to a new memory space for modification,

a ~~twelfth~~ eleventh computer readable program code means for causing a computer to alter said object with said instance methods, and

a ~~thirteenth~~ twelfth computer readable program code means for causing a computer to update said attribute pointer of said object pointer to the memory space of said object that has been altered.

31. (new) The method of claim 1, wherein each object of the plurality of objects is associated with one of said pages, wherein each of said pages has an assigned priority, and wherein objects of the plurality of objects are ordered within said content stream according to the priority assigned to pages with which the objects are associated.

32. (new) The system of claim 10, wherein each object of the plurality of objects is associated with one of said pages, wherein each of said pages has an assigned priority, and

wherein the means for serializing said document is configured to order objects of the plurality of objects within said content stream according to the priority assigned to pages with which the objects are associated.

33. (new) The computer program product of claim 19, wherein each object of the plurality of objects is associated with one of said pages, wherein each of said pages has an assigned priority, and

wherein the fourth computer readable program code means is configured to order objects of the plurality of objects within said content stream according to the priority assigned to pages with which the objects are associated.